

REMARKS

The Advisory Action mailed January 30, 2007 and the Final Office Action mailed September 21, 2006, have been received and reviewed. Claims 1-4 and 8 are currently pending in the application. Claims 1-4 and 8 were rejected. Applicant proposes to amend independent claim 1 herein, and respectfully requests reconsideration of the application as amended herein.

Supplemental Information Disclosure Statement

Applicant notes the filing of Supplemental Information Disclosure Statement herein on November 21, 2005, and note that no copies of the PTO/SB/08A were returned with the outstanding Office Action. Applicant respectfully requests that the information cited on the PTO/SB/08A be made of record herein and that initialed copies of the PTO/SB/08A be returned to Applicant's undersigned attorney.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 6,319,317 to Takamori

Claims 1-3 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takamori (U.S. Patent No. 6,319,317). Applicant respectfully traverses this rejection, as hereinafter set forth.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (Aug. 2001) (*quoting Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Id.* (*quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1051, 1053 (Fed. Cir. 1987)). In addition, "the reference must be enabling and describe the applicant's invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Applicants submit that the Takamori reference does not and cannot anticipate under 35 U.S.C. § 102 the presently claimed invention of independent claim 1, and claims 2-3 and 8

depending therefrom, because the Takamori reference does not describe, either expressly or inherently, the identical inventions in as complete detail as are contained in the claims.

The Advisory Action states:

... Takamori is [] a platform, a sensing system and a deposition system. These elements directly correspond to the claimed elements. Furthermore, *the sensing system [of Takamori] operates to ensure a proper spreading by control of the deposition and the spinning (i.e., the deposition operation) such that thickness of the deposit is controlled* (see the citations in the prior office action).

It seems that applicant is confusing what is being done (measuring over the semiconductor die both an upper surface including a previous material previously deposited thereon and to continuously measure a surface level of a material being deposited on the upper surface until the surface level of a material corresponds to a specific thickness of the material) and how it is being done (by detecting the outline of the periphery of the resist solution). Clearly, *identifying an outline is a measurement, and the portions inside the measurement are a surface level of the material being deposited* on the upper surface and the portions outside the outline are an upper surface, including any previous material previously deposited thereon. Since the outline changes, and the camera measures this change, the measurement is continuous. Since the sensing system includes associated controllers (columns 11-13), the function of the sensor 105 clearly measures and controls for thickness. This is sufficient to anticipate applicant's claims. (Advisory Action, continuation sheet; emphasis added.)

Applicants respectfully disagree that the Takamori reference anticipates Applicants' invention as claimed in amended independent claim 1 which reads:

1. A system for selectively depositing a material on a previously formed workpiece, comprising:
 - a platform for supporting the workpiece including a semiconductor die during a deposition process;
 - a sensing system configured** to measure over the semiconductor die both an upper surface including a previous material previously deposited thereon and to **continuously directly measure a surface level of a material** being deposited on the upper surface until the surface level of the material *is directly measured to be a specific thickness* of the material; and
 - a deposition system for depositing the material on the workpiece to the specific thickness as monitored by the sensing system. (Emphasis added.)

Applicants respectfully assert that the Takamori reference cannot anticipate under 35 U.S.C. § 102 Applicants' invention as presently claimed in amended independent claim 1 because the Takamori reference does not describe, either expressly or inherently, the identical

inventions in as complete detail as are contained in the claims. Since the Takamori reference does not describe, either expressly or inherently, the identical inventions in as complete detail as are contained in the claims, the Takamori reference cannot anticipate under 35 U.S.C. § 102 the presently claimed invention of independent claim 1, and claims 2 and 4 depending therefrom.

The Advisory Action concedes that the “sensing system” of the Takamori reference *detects the outline of the material being deposited*. Specifically, the Takamori reference’s alleged “sensing system (Figure 4, item 105) discloses a camera that detects the outline of the periphery of the resist solution spreading across a wafer to determine if the spreading state is acceptable (i.e., generally circular) or if the resist has an improper consistency resulting in undesirable spreading (i.e., varying radius or wave-like periphery) known as a “scratchpad.” At most, the Takamori “sensing system” “calculates” not measures an estimated thickness by computing an estimated thickness from a known volume being distributed over a measured area. Again, the Takamori “sensing system” discloses measurement of an area about which a known volume of material is distributed and not a sensing system “**configured ... to continuously directly measure a surface level of a material ... until the surface level of the material is directly measured to be a specific thickness** of the material” as claimed by Applicants.

Specifically, the Takamori reference discloses:

- ... detecting sensor 105 for detecting a spreading state of an outline of the outer periphery of the resist solution when the resist solution is discharged onto almost the center of the rotated wafer W and the resist solution spreads out from almost the center of the wafer W toward the outer edge. As this detecting sensor 105, for example, a CCD camera can be used. (Takamori, col. 8, lines 30-36).
- ... the spreading state of the outline of the outer periphery of the resist solution R is detected by the detecting sensor 105 such as a CCD camera or the like (Takamori, col. 9, lines 44-46).

The “sensing system” of the Takamori reference clearly is not “**configured ... to continuously directly measure a surface level of a material ... until the surface level of the material is directly measured to be a specific thickness** of the material” as claimed by Applicants. Therefore, the Takamori reference cannot anticipate under 35 U.S.C. § 102

Applicants' invention as presently claimed in amended independent claim 1 from which claims 2-3 and 8 depend. Accordingly, Applicants respectfully request the rejections be withdrawn.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness rejection of claim 4 based on U.S. Patent No. 6,319,317 to Takamori as applied to claims 1 through 3 and 8 above, and further in view of U.S. Patent No. 6,642,155 to Whitman

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Takamori (U.S. Patent No. 6,319,317) as applied to claims 1 through 3 and 8 above, and further in view of Whitman (U.S. Patent No. 6,642,155). Applicant respectfully traverses this rejection, as hereinafter set forth.

The nonobviousness of independent claim 1 precludes a rejection of claim 4 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to dependent claim 4 as independent claim 1 is allowable.

CONCLUSION

Claims 1-4 and 8 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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